

Idaho Disease

Bulletin



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Division of Health

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Public Health in the New Millenium: Progress, New Threats, New Partners



Many improvements have occurred in public health surveillance over the last decade and continue to evolve. Some of these improvements are found in the area of laboratory surveillance and others in applied epidemiology.

Examples in the laboratory include the recent application of molecular methodologies, such as polymerase chain reaction (PCR) to enhance identification of micro-organisms and their toxins. Pulsed-field gel electrophoresis (PFGE) pattern visualization is now employed to link cases, contaminated products, and local outbreaks. The laboratory has also improved their electronic capabilities to compare local outbreaks with national outbreaks though PulseNet, a CDC-managed PFGE-pattern clearinghouse.

Epidemiology staff, in association with the Idaho Medical Association, Boards of Health, and Health Districts, recently updated the 1992 Rules and Regulations Governing Idaho Reportable Diseases (up for approval during the next legislative session),

adding to the reportable diseases list new, emerging infectious diseases, conditions, and 'syndromic' reporting.

👉 Syndromic Surveillance 👈 Starts with You Please Report

- Increased visits with unexplained or unusual illness
- Unusual presentation of a known pathogen
- Unexplained deaths of a suspected infectious nature
- Possible intentional exposures to a chemical or biological agent

Syndromic reporting is an attempt to identify emerging pathogens or bioterrorist events in a timely manner in

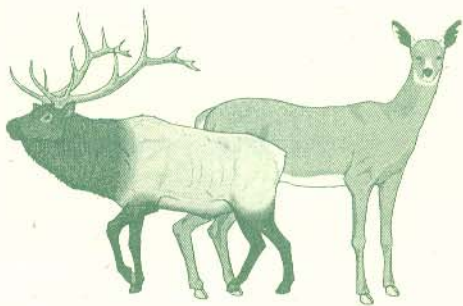
Cont'd...

E. coli O157:H7 outbreak 2
Rabies PEP 3

your community. The early notification of an unusual situation will allow health departments to mount an intervention. This type of reporting is encouraged, even in the absence of laboratory confirmation. (See box.)

Regionally, new partnerships have recently been forged between State Public Health and State Veterinary officials from the frontier states of Idaho, Montana, South Dakota, and North Dakota. This partnership has been funded by a CDC grant to enhance regional surveillance for emerging infectious diseases and bioterrorist events. Many of the biologic agents useful as weapons of mass destruction are of animal origin and, therefore, require data collection from sentinel veterinary species.

More information will be presented in future issues regarding the CDC grant and what it means for public health in Idaho.



E. coli O157:H7 Strikes Again

Twenty confirmed and 10 probable cases of *E. coli* O157:H7 infection have occurred in Ada, Canyon, Gem, and Adams county residents between October 13 and November 15. Molecular analysis of 18 of the confirmed cases has revealed pulsed-field gel electrophoresis (PFGE)

patterns consistent with a common exposure to the identical strain of bacteria.

Epidemiologic studies showed a compelling association between illness and the consumption of wild game pepperoni, all from a processor in the greater Boise area. The investigation is ongoing. The State Laboratory is still in the process of analyzing the pepperoni for *E. coli* O157:H7. It is unclear at this time if the contamination originated in the game meat, the beef or pork additives, or by some other mechanism. Although the majority of zoonotic *E. coli* O157:H7 infections are traced to infected cattle, deer have been known to harbor the microorganism^{1,2}.

As soon as a few early cases were interviewed and a rather striking common risk factor began to materialize (e.g. consumption of wild game pepperoni), a press release was generated on October 22. As cases continued to occur, all with the same risk factor, additional press releases were generated (October 26 and November 3). Through the media and individual meetings, the Health Department has advised customers to dispose of any potentially contaminated wild game pepperoni or jerky and to notify any individuals to whom they gave any product to do the same.

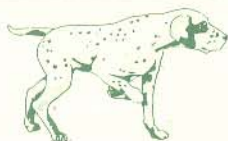
No new primary cases have been identified since November 3rd. A secondary case from a household contact developed clinical symptoms around November 15.

Members of the State and local Health Departments are concerned that potentially contaminated product could still be lurking in pantries to be consumed over the holidays or beyond.

The safest thing to do is cook any meat product, be it beef, pork, or wild game, thoroughly before eating.

1. Rice, D., et al., Verotoxigenic *E. coli* O157 colonization of wild deer and range cattle. *Vet Rec* 1995;137:524
2. Keene, W., et al., An outbreak of *E. coli* O157:H7 infections traced to jerky made from deer meat, *JAMA*, 1997, Vol 277 (15), 1229-31

When Should you Give Rabies Post-



Exposure Prophylaxis?

The State Health Department follows all statements put forth by the Centers for Disease Control and Prevention Morbidity and Mortality Weekly Review publication regarding the use of rabies post-exposure prophylaxis (rPEP)¹. Idaho-specific rabies information is also part of the equation when determining if rPEP is required.

Domestic Animals in Idaho

Vaccines are approved for dogs, cats, and ferrets², however, many animals are not properly immunized and situations may arise that justify the use of rPEP.

✓ Although there have been no documented cases of dog or cat-strain rabies in Idaho, domestic animals with the bat strain have been found (2 cats infected with the bat strain in 1991 and 1992 respectively) and are considered infectious.

✓ A domestic animal recently moving to the state from an endemic region of the country could pose a risk.

✓ A wolf-hybrid, popular in many communities of Idaho, is still not considered protected by vaccination.

Every wolf-hybrid case is reviewed on a case-by-case basis.

In Eastern Idaho, early in 1999, a rabid horse, infected with the bat strain of rabies, provided significant exposure necessitating rPEP in seven (7) human contacts and quarantine and vaccination of numerous farm animals.

Wild Animals

Bats are the number one wild species in Idaho to harbor the rabies virus. To our knowledge, skunk rabies, found in Montana, has not entered the state. That does NOT mean that wild animals couldn't be infected with the bat strain and pass the virus on to a human.

A bite is NOT required to declare a bat exposure. Several human fatalities have been attributed to a bat exposure in the absence of a clearly defined entry wound. That is why CDC recommends that waking up in the presence of a bat, or finding a baby or incapacitated person in the presence of a bat, should be sufficient information to consider undertaking the rPEP series.

The rPEP series

- ✓ Rabies immune globulin (RIG) day 0, infused around wound or IM
- ✓ 5 vaccinations total, given on days 0, 3, 7, 14, and 28.

Most major hospital pharmacies in Idaho stock these products. The District and State Health Departments can also help you locate the products, if required.

1. Human Rabies Prevention-United States, 1999, Recommendations of the Advisory Committee on Immunization Practices (ACIP) Jan 8, 1999, Vol 48, No. RR-1
2. Compendium of Animal Rabies Control, 1999. MMWR, April 3, 1999/48 (RR-3); 1-9



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